



# Department of Environmental Protection

Jeb Bush  
Governor

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

Colleen M. Castille  
Secretary

## CONSOLIDATED JOINT COASTAL PERMIT AND SOVEREIGN SUBMERGED LANDS AUTHORIZATION

**PERMITTEE/AUTHORIZED ENTITY:**

City of Jacksonville  
c/o Mr. Ronald Schumaker  
220 East Bay Street  
Jacksonville, Florida 32232

Permit/Authorization No.: 0228528-001-JC

Date of Issue: April 18, 2005

Expiration Date of Construction Phase:  
April 18, 2015

County: Duval

Project: Duval County Beach Nourishment  
Project

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This permit is issued under the authority of Chapter 161 and Part IV of Chapter 373, Florida Statutes (F.S.), and Title 62 and 40, Florida Administrative Code (F.A.C.). Pursuant to Operating Agreements executed between the Department of Environmental Protection (Department) and the water management districts, as referenced in Chapter 62-113, F.A.C., the Department is responsible for reviewing and taking final agency action on this activity.

**ACTIVITY DESCRIPTION:**

The project is to nourish approximately 9.5 miles of beach, from the south jetty at Mayport to the St. Johns County line (from R-37 to R-80). The volume of material that would be placed is anticipated to be in the range of one million to one and a half million cubic yards per event, using material from two borrow areas, A and B1, located approximately seven miles offshore from Atlantic Beach. The project has been designed for a nourishment interval of 5 to 7 years.

**ACTIVITY LOCATION:**

The nourishment site is located in Duval County, Section 38, Township 1S, Range 29E, Atlantic Ocean, Class III Waters. The borrow areas are located in federal waters, offshore from Atlantic Beach, out of State of Florida waters.

This permit constitutes a finding of consistency with Florida's Coastal Zone Management Program, as required by Section 307 of the Coastal Zone Management Act. This permit also constitutes certification of compliance with state water quality standards pursuant to Section 401 of the Clean Water Act, 33 U.S.C. 1341.



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This activity also requires a proprietary authorization, as the activity is located on sovereign submerged lands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, and Sections 253.002 and 253.77, F.S. The activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take final action on this request for proprietary authorization in accordance with Section 18-21.0051, F.A.C., and the Operating Agreements executed between the Department and the water management districts, as referenced in Chapter 62-113, F.A.C. In addition to the above, this proprietary authorization has been reviewed in accordance with Chapter 253, F.S., Chapter 18-21, Section 62-343.075, F.A.C., and the policies of the Board of Trustees.

As staff to the Board of Trustees, the Department has reviewed the activity described above, and has determined that the nourishment activity qualifies for a Letter of Consent to use sovereign, submerged lands, as long as the work performed is located within the boundaries as described herein and is consistent with the terms and conditions herein. Therefore, consent is hereby granted to the City of Jacksonville, pursuant to Chapter 253.77, F.S., to perform the activity on the specified sovereign submerged lands.

The above named permittee is hereby authorized to construct the work shown on the application and approved drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof. **This permit and authorization to use sovereign submerged lands is subject to the limits, conditions, and locations of work shown in the attached drawings, and is also subject to the General Conditions and Specific Conditions, which are a binding part of this permit and authorization.** You are advised to read and understand these drawings and conditions prior to commencing the authorized activities, and to ensure the work is conducted in conformance with all the terms, conditions, and drawings. If you are utilizing a contractor, the contractor also should read and understand these drawings and conditions prior to commencing the authorized activities.

**GENERAL CONDITIONS:**

1. All activities authorized by this permit shall be implemented as set forth in the plans and specification approved as a part of this permit, and all conditions and requirements of this permit. The permittee shall notify the Department in writing of any anticipated deviation from the permit prior to implementation so that the Department can determine whether a modification of the permit is required pursuant to section 62B-49.008, Florida Administrative Code.
2. If, for any reason, the permittee does not comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Bureau of Beaches and Coastal Systems and the appropriate District office of the Department with a written report containing the following information: a description of and cause of noncompliance; and the



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period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

3. This permit does not eliminate the necessity to obtain any other applicable licenses or permits which may be required by federal, state, local, special district laws and regulations. This permit is not a waiver or approval of any other Department permit or authorization that may be required for other aspects of the total project which are not addressed in this permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of sovereignty land of Florida seaward of the mean high-water line, or, if established, the erosion control line, unless herein provided and the necessary title, lease, easement, or other form of consent authorizing the proposed use has been obtained from the State. The permittee is responsible for obtaining any necessary authorizations from the Board of Trustees of the Internal Improvement Trust Fund prior to commencing activity on sovereign lands or other state-owned lands.

5. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered specifically approved unless a specific condition of this permit or a formal determination under section 373.421(2), F.S., provides otherwise.

6. This permit does not convey to the permittee or create in the permittee any property right, or any interest in real property, nor does it authorize any entrance upon or activities on property which is not owned or controlled by the permittee. The issuance of this permit does not convey any vested rights or any exclusive privileges.

7. This permit or a copy thereof, complete with all conditions, attachments, plans and specifications, modifications, and time extensions shall be kept at the work site of the permitted activity. The permittee shall require the contractor to review the complete permit prior to commencement of the activity authorized by this permit.

8. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel with proper identification and at reasonable times, access to the premises where the permitted activity is located or conducted for the purpose of ascertaining compliance with the terms of the permit and with the rules of the Department and to have access to and copy any records that must be kept under conditions of the permit; to inspect the facility, equipment, practices, or operations regulated or required under this permit; and to sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.



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9. At least forty-eight (48) hours prior to commencement of activity authorized by this permit, the permittee shall submit to the Bureau of Beaches and Coastal Systems and the appropriate District office of the Department a written notice of commencement of construction indicating the actual start date and the expected completion date and an affirmative statement that the permittee and the contractor, if one is to be used, have read the general and specific conditions of the permit and understand them.

10. If historical or archaeological artifacts are discovered at any time on the project site, the permittee shall immediately notify the State Historic Preservation Officer and the Bureau of Beaches and Coastal Systems.

11. Within 30 days after completion of construction, the permittee shall submit to the Bureau of Beaches and Coastal Systems and the appropriate District office of the Department a written statement of completion and certification by a licensed professional engineer registered in the state of Florida. *(NOTE: Certification by a licensed professional engineer registered in the State of Florida is not required for written statements of completion submitted by the U.S. Army Corps of Engineers).* This certification shall state that all locations and elevations specified by the permit have been verified, the activities authorized by the permit have been performed in compliance with the plans and specifications approved as a part of the permit, and all conditions of the permit, or shall describe any deviations from the plans and specifications, and all conditions of the permit. When the completed activity differs substantially from the permitted plans, any substantial deviations shall be noted and explained on two copies of as-built drawings submitted to the Department. For that part of the project construction undertaken by the U.S. Army Corps of Engineers, the Corps shall submit to the Department a written statement of completion, in lieu of this certification. This statement shall notify the Department that the work has been completed and shall include a description of the actual work completed under the Corps' direction. If requested, the Department shall be provided a copy of any as-built drawings required of the Corps' contractor or survey performed by the Corps.

**SPECIFIC CONDITIONS:**

1. Prior to the commencement of each construction event, the permittee shall submit two copies of detailed final construction plans and specifications for all authorized activities, certified by an engineer duly registered pursuant to Chapter 471, Florida Statutes, or other appropriate individual. The plans shall include details of construction, including general construction procedures and equipment to be used.

- a. At least 30 days prior to the commencement of each construction event to be conducted during the term of this permit, the permittee shall submit a proposed construction schedule to the following:



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DEP, Bureau of Beaches and Coastal Systems  
JCP Compliance Officer  
3900 Commonwealth Boulevard, Mail Station 300  
Tallahassee, Florida 32399-3000

DEP Northeast District Office  
Submerged Lands & Environmental Resources  
7825 Baymeadow Way, Suite B200  
Jacksonville, FL 32256  
phone: (904) 807-3300

2. If historical or archaeological artifacts such as, but not limited to, Indian canoes, arrow heads, pottery or physical remains, are discovered at any time within the project site, the permittee will direct the ACOE to advise the contractor to immediately stop all activities which disturb the soil and notify the Department's District Office and the Bureau of Historic Preservation, Division of Historical Resources, R. A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250.
3. All reports or notices relating to this permit shall be sent to the DEP, Bureau of Beaches and Coastal Systems, JCP Compliance Officer, 3900 Commonwealth Boulevard, Mail Station 300, Tallahassee, Florida 32399-3000 and the DEP Northeast District Office, 7825 Baymeadows Way, Suite B200, Jacksonville, FL 32256.
4. At least 7 days prior to commencement of each event of the beach fill placement construction activities authorized by this permit, the permittee in coordination with the ACOE, shall conduct a pre-construction conference to review the specific conditions and monitoring requirements of this permit with permittee's contractors, the engineer of record and Department staff representatives. The permittee shall provide written notification, at least 14 days in advance of the meeting, to the following offices advising of the date, time, location, and teleconference number of the pre-construction conference.

DEP Bureau of Beaches & Coastal Systems  
JCP Compliance Officer  
Mail Station 300  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000  
phone: (850) 487-4471  
fax: (850) 488-5257

DEP Northeast District Office  
Submerged Lands & Environmental Resources  
7825 Baymeadows Way, Suite B200  
Jacksonville, FL 32256  
phone: (904) 807-3300

Imperiled Species Management Section  
Florida Fish & Wildlife Conservation Commission  
620 South Meridian Street  
Tallahassee, Florida 32399-1600  
phone: (850) 922-4330  
fax: (850) 921-4369

**Sediment Quality Assurance/ Quality Control Measures:**

5. In a post-construction report, the permittee shall provide granulometric and compatibility analysis of the placement material. In doing so, the permittee shall sample mid-berm at a 3000-foot spacing with two (replicate) samples. These samples shall be analyzed in the lab for standard grain size distribution (mean, sorting, silt content, etc.), carbonate content, and moist Munsell color. These analyses must be done in order to verify the analysis of sediment characteristics of the fill material from the permitted borrow site. A summary table of this information for the placement material and the native/existing beach shall be included.

6. Rule 62B-41.007(2)(j), F.A.C., states that beach compatible fill material must "maintain the general character and functionality of the material occurring on the beach" and "shall be similar in color and grain size distribution (sand grain frequency, mean and median grain size and sorting coefficient)". Therefore, as part of the QA/QC plan, the permittee shall provide a general remediation plan for the removal of unacceptable material (prior to demobilization of construction equipment) that may have been placed on the beach. This plan is to be based upon the samples taken during construction.

7. In order to ensure compatibility of the borrow area material and the native/existing beach, the geotechnical data shall be reviewed again once the dredge depths have been provided by the permittee for each nourishment event associated with this permit.

**Marine Turtle Protection Measures**

8. All fill material placed shall be sand that is similar to that already existing at the beach site in both coloration and grain size distribution and suitable for marine turtle nesting. All such fill material shall meet the criteria for beach-compatible fill in Rule 62B-41.007(2)(j).



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9. Construction-related activities are authorized to occur on the nesting beach (seaward of existing coastal armoring structures or the dune crest) under the following conditions:

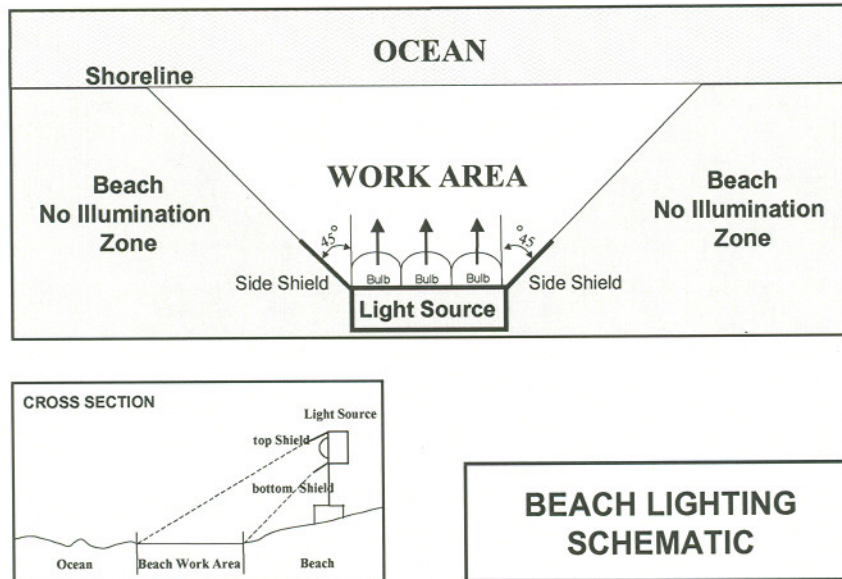
- a. A daily marine turtle nest survey of the nesting beach in the vicinity of the project (including areas of beach access) shall be conducted if any portion of the beach nourishment project occurs during the period from April 1 through November 30. Nesting surveys must be initiated 65 days prior to nourishment or by April 1, whichever is later and continue until September 1. Hatching and emerging success monitoring shall continue through October 31.
- b. No construction activity may commence until completion of the marine turtle survey each day. While nourishment activities may proceed over a 24-hour period, no new construction activities should proceed on a section of beach after 9 PM and before the morning sea turtle survey unless a nighttime nesting survey has been conducted in that area to ensure no nesting turtles or unmarked nests are present.
- c. It is the responsibility of the permittee to ensure that the project area and access sites are surveyed for marine turtle nesting activity. All nesting surveys, nest relocations screening or caging activities etc. shall be conducted only by persons with prior experience and training in these activities and who is duly authorized to conduct such activities through a valid permit issued by the Fish and Wildlife Conservation Commission (FWC), pursuant to Florida Administrative Code 68E-1.
- d. Only those nests that may be affected by construction activities shall be relocated. Nests requiring relocation shall be moved no later than 9 a.m. the morning following deposition to a nearby self-release beach site in a secure setting where artificial lighting will not interfere with hatchling orientation.
- e. Nest relocations in association with construction activities shall cease when construction activities no longer threaten nests. Nests deposited within areas where construction activities have ceased or will not occur for 70 days shall be marked and left in place unless other factors threaten the success of the nest. Such nests will be marked and the actual location of the clutch determined. A circle with a radius of ten (10) feet, centered at the clutch, shall be marked by stake and survey tape or string. No construction activities shall enter this circle and no adjacent construction shall be allowed which might directly or indirectly disturb the area within the staked circle.

10. From May 1 through October 31, all project lighting shall be limited to the immediate area of active construction only and shall be the minimal lighting necessary to comply with U.S. Coast Guard, EM 385-1-1, and/or OSHA requirements. Stationary lighting on the beach and all



lighting on the dredge shall be minimized through reduction, shielding, lowering, and appropriate placement of lights to minimize illumination of the nesting beach and water (Figure 1).

Figure 1. Lighting



11. From May 1 through October 31, staging areas for construction equipment shall be located off the beach to the maximum extent practicable. Nighttime storage of construction equipment not in use shall be off the beach to minimize disturbance to sea turtle nesting and hatching activities. All construction pipes that are placed on the beach shall be located as far landward to the maximum extent practical, without compromising the integrity of the existing or reconstructed dune system.

12. Immediately after completion of the each fill placement event and prior to April 1 for 3 subsequent years if placed sand still remains on the beach, the beach shall be tilled as described below. During the 3 years following each fill placement event, the permittee may measure sand compaction in the area of restoration in accordance with a protocol agreed to by the FWC, the Department, the U.S. Fish & Wildlife Service, and the applicant to determine if tilling is necessary. At a minimum, the protocol provided below shall be followed. If required, the area shall be tilled to a depth of 24 inches. All tilling activity must be completed prior to April 1. An annual summary of compaction surveys and the actions taken shall be submitted to the FWC. If the project is completed during the nesting season, tilling shall not occur in areas where nests have been left in place or relocated unless authorized by the U.S. Fish and Wildlife Service in an Incidental Take Statement. A report on the results of compaction monitoring shall be submitted



to the FWC prior to any tilling actions being taken. This condition shall be evaluated annually and may be modified if necessary to address sand compaction problems identified during the previous year.

- a. Compaction sampling stations shall be located at 500-foot intervals along the project area. One station shall be at the seaward edge of the dune/bulkhead line (when material is placed in this area) and one station shall be midway between the dune line and the high water line (normal wrack line).
- b. At each station, the cone penetrometer shall be pushed to a depth of 6, 12, and 18 inches three times (three replicates). Material may be removed from the hole if necessary to ensure accurate readings of successive levels of sediment. The penetrometer may need to be reset between pushes, especially if sediment layering exists. Layers of highly compact material may lay over less compact layers. Replicates shall be located as close to each other as possible, without interacting with the previous hole and/or disturbed sediments. The three replicate compaction values for each depth shall be averaged to produce final values for each depth at each station. Reports shall include all 18 values for each transect line, and the final 6 averaged compaction values.
- c. If the average value for any depth exceeds 500 psi for any two or more adjacent stations, then that area shall be tilled prior to April 1. If values exceeding 500 psi are distributed throughout the project area but in no case do those values exist at two adjacent stations at the same depth, then consultation with the FWC shall be required to determine if tilling is required. If a few values exceeding 500 psi are present randomly within the project area, tilling shall not be required.

13. Visual surveys for escarpments along the beach fill area shall be made immediately after completion of the beach nourishment project and prior to April 1 for the following three years if placed sand still remains on the beach. All scarps shall be leveled or the beach profile shall be reconfigured to minimize scarp formation. In addition, weekly surveys of the project area shall be conducted during the two nesting seasons following completion of fill placement as follows.

- a. The number of escarpments and their location relative to DNR-DEP reference monuments shall be recorded during each weekly survey and reported relative to the length of the beach surveyed (e.g., 50% scarps). Notations on the height of these escarpments shall be included (0 to 2 feet, 2 to 4 feet, and 4 feet or higher) as well as the maximum height of all escarpments.
- b. Escarpments that interfere with sea turtle nesting or that exceed 18 inches in height for a distance of 100 feet shall be leveled to the natural beach contour by April 1.



Any escarpment removal shall be reported relative to R-monument.

- c. If weekly surveys during the marine turtle nesting season document subsequent reformation of escarpments that exceed 18 inches in height for a distance of 100 feet, the FWC shall be contacted immediately to determine the appropriate action to be taken. Upon written notification, the permittee shall level escarpments in accordance with mechanical methods prescribed by the FWC.
14. A lighting survey shall be conducted from the renourished berm in all project areas prior to May 1 of the first nesting season following nourishment and action taken to ensure that no lights or light sources are visible from the newly elevated beach. A report summarizing all lights visible, using standard techniques for such surveys, shall be submitted to FWC by May 15 of the first nesting season following the beach nourishment. This report shall specify all compliance and enforcement actions completed.
15. The applicant shall arrange a meeting between representatives of the contractor, the Department, the FWC, and the permitted person responsible for egg relocation at least 30 days prior to the commencement of work on this project. At least 10 days advance notice shall be provided prior to conducting this meeting. This will provide an opportunity for explanation and/or clarification of the sea turtle protection measures.
16. Reports on all nesting activity shall be provided for the initial nesting season and for a minimum of two additional nesting seasons. Monitoring of nesting activity in the three seasons following construction shall include daily surveys and any additional measures authorized by the FWC.
- a. Reports submitted shall include daily report sheets noting all activity, nesting success rates, hatching success of all relocated nests, hatching success of a representative sampling of nests left in place (if any), dates of construction and names of all personnel involved in nest surveys and relocation activities.
  - b. Data should be reported separately for the nourished areas and for adjacent beach that is not nourished (such as Hanna Park) in accordance with the attached Table. Summaries of nesting activity shall be submitted in electronic format (Excel spreadsheets). All reports should be submitted by January 15 of the following year.
17. In the event a sea turtle nest is excavated during construction activities, all work shall cease in that area immediately and the permitted person responsible for egg relocation for the project should be notified so the eggs can be moved to a suitable relocation site.



18. In the event a hopper dredge is utilized for sand excavation, all conditions in the NMFS Biological Opinion for hopper dredging must be followed, and the FWC shall be sent copies of the reports specified in the Biological Opinion.

19. Upon locating a dead, injured, or sick endangered or threatened sea turtle specimen, initial notification must be made to the FWC at 1-888-404-FWCC. Care should be taken in handling sick or injured specimens to ensure effective treatment and care and in handling dead specimens to preserve biological materials in the best possible state for later analysis of cause of death. In conjunction with the care of sick or injured endangered or threatened species or preservation of biological materials from a dead animal, the finder has the responsibility to ensure that evidence intrinsic to the specimen is not unnecessarily disturbed.

#### **Shorebird Protection Measures**

20. If construction occurs in April through September, shorebird surveys shall be conducted in the project area. Surveys should be conducted by trained, dedicated individuals using accepted, appropriate ecological survey procedures (for example, see "*Breeding Season Population Census Techniques for Seabirds and Colonial Waterbirds Throughout North America*" at URL: <http://www.mp2-pwrc.usgs.gov/cwb/manual/>). Surveys shall assess the presence of colonial (least terns, skimmers, ect.) and solitary (Wilson's plover, snowy plover, ect.) nesting shorebirds.

- a. Surveys for nesting shorebirds shall begin on April 1 or 45 days prior to construction commencement, whichever is later, and be conducted daily throughout the construction period or through September 1 if no shorebird nesting activity is observed. For the initial nourishment event, shorebird monitoring shall begin as soon as practical, prior to commencement of the project.
- b. Each shorebird species observed, a rough estimate of numbers of each species, the location of the birds, and their activity (e.g., foraging, resting, nesting, courtship behavior) should be logged and reported to the FWC Regional Wildlife Diversity Conservation Biologist at (386) 758-0531 monthly. The applicant shall contact the FWC Regional Biologist within 24 hours if nesting shorebirds are documented within the construction area.

21. Within the project area, the permittee shall establish a 300 ft-wide buffer zone around any location where shorebirds have been engaged in courtship or nesting behavior, or around areas where piping plovers occur or winter migrants congregate in significant numbers. Any and all construction activities, including movement of vehicles, should be prohibited in the buffer zone.

- a. The width of the buffer zone shall be increased if birds appear agitated or disturbed by construction or other activities in adjacent areas.



- b. Site-specific buffers may be implemented upon approval by FWC as needed.
- c. Designated buffer zones must be posted with clearly marked signs around the perimeter. These markings shall be maintained until nesting is completed or terminated, the chicks fledge, or piping plovers or winter migrants depart.
- d. No construction activities or stockpiling of equipment shall be allowed within the buffer area.
- e. FWC-approved travel corridors should be designated and marked outside the buffer areas. Heavy equipment, other vehicles, or pedestrians may transit past nesting areas in these corridors. However, other activities such as stopping or turning, shall be prohibited within the designated travel corridors adjacent to the nesting site.
- f. Where such a travel corridor must be established within the project area it should avoid critical areas for shorebirds (known nesting sites, wintering grounds, FWC-designated Critical Wildlife Areas, and USFWS-designated critical piping plover habitat) as much as possible, and be marked with signs clearly delineating the travel corridor from the shorebird buffer areas described above.
- g. To the degree possible, the permittee should maintain some activity within these corridors on a daily basis, without directly disturbing any shorebirds documented on site or interfering with sea turtle nesting, especially when those corridors are established prior to commencement of construction. Passive methods to modify nesting site suitability must be approved by the FWC Wildlife Diversity Conservation Biologist for that region.

22. If shorebird nesting occurs within the project area, a bulletin board will be placed and maintained in the construction area with the location map of the construction site showing the bird nesting areas and a warning, clearly visible, stating that "BIRD NESTING AREAS ARE PROTECTED BY THE FLORIDA THREATENED AND ENDANGERED SPECIES ACT AND THE FEDERAL MIGRATORY BIRD ACT".

23. All tilling and scarp removal should be done outside the shorebird nesting season. If necessary, contractors should contact the FWC Regional Wildlife Diversity Conservation Biologist to obtain data on known shorebird nesting areas. It is the responsibility of the contractors to avoid tilling, scarp removal, or dune vegetation planting in areas where nesting birds are present.



- a. A relatively even surface, with no deep ruts or furrows, shall be created during tilling. To do this, chain-linked fencing or other material shall be dragged over those areas as necessary after tilling.
  - b. The slope between the mean high water line and the mean low water line must be maintained in such a manner as to approximate natural slopes.
24. If it will be necessary to extend construction pipes past a known shorebird nesting site or over-wintering area for piping plovers, then whenever possible those pipes should be placed landward of the site before birds are active in that area. No sand shall be placed seaward of a known shorebird nesting site during the shorebird nesting season.

**Manatee Protection Measures**

25. The permittee shall comply with the following manatee protection construction conditions:
- a. The permittee shall instruct all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees. All construction personnel are responsible for observing water-related activities for the presence of manatee(s).
  - b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act.
  - c. Siltation barriers shall be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exist from essential habitat.
  - d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area.
  - e. If manatee(s) are seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure protection of the manatee. These precautions shall include the operation of all moving equipment no closer than 50 feet of a manatee. Operation of any equipment closer than 50 feet to a manatee shall necessitate immediate shutdown of that equipment. Activities will not resume until the manatee(s) has departed the project area of its own volition.



- f. Any collision with and/or injury to a manatee shall be reported immediately to the FWC Hotline at 1-888-404-FWCC. Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-562-3909) in south Florida.

#### **MONITORING REQUIRED:**

26. **Water Quality - Turbidity - Nephelometric Turbidity Units (NTUs)**

Frequency: Twice daily at least 4 hours apart during all nourishment operations.

Location: Background: At mid-depth, at least 300 meters upcurrent from the discharge point and clearly outside the influence of any turbidity generated by the project.

Compliance: At mid-depth, no more than 150 meters downcurrent from the discharge within the densest portion of any visible turbidity plume.

All monitoring data shall be submitted within one week of analysis with documents containing the following information: (1) "**Duval Beach Nourishment Project, Permit No. 0228528-001-JC**"; (2) dates of sampling and analysis; (3) a statement describing the methods used in collection, handling, storage and analysis of the samples; (4) a map indicating the sampling locations; (5) a statement by the individual responsible for implementation of the sampling program concerning the authenticity, precision, limits of detection and accuracy of the data.

Monitoring reports shall also include the following information for each sample that is taken:

- (a) time of day samples taken;
- (b) depth of water body;
- (c) depth of sample;
- (d) antecedent weather conditions;
- (e) tidal stage and direction of flow; and
- (f) wind direction and velocity.

The compliance locations given above shall be considered the limits of the temporary mixing zone for turbidity allowed during construction. If monitoring reveals turbidity levels at the compliance site greater than or equal to 29 NTUs above background turbidity levels in excess of the turbidity level at the corresponding background site, construction activities shall cease immediately and not resume until corrective measures have been taken and turbidity has returned to acceptable levels. Any such occurrence shall also be immediately reported to the DEP/BBCS-



JCP Compliance Officer and DEP's Northeast District Office (7825 Baymeadows Way, Suite B200, Jacksonville, FL 32256).

**Physical Monitoring**

27. Pursuant to 62B-41.005(16), F.A.C., physical monitoring of the project is required through acquisition of project-specific data to include, at a minimum, topographic and bathymetric surveys of the beach and offshore, and engineering analysis. The monitoring data is necessary in order for both the project sponsor(s) and the Department to regularly observe and assess, with quantitative measurements, the performance of the project, any adverse effects which have occurred, and the need for any adjustments, modifications, or mitigative response to the project. The scientific monitoring process also provides the project sponsor and the Department information necessary to plan, design, and optimize subsequent follow-up projects, potentially reducing the need for and costs of unnecessary work, as well as potentially reducing any environmental impacts that may have occurred or be expected.

**Prior to commencement of construction, the permittee shall submit a detailed Monitoring Plan to the Department.** The Monitoring Plan shall indicate the project's predicted design life.

The approved Monitoring Plan can be revised at any later time by written request of the permittee and with the written approval of the Department. If subsequent to approval of the Monitoring Plan there is a request for modification of the permit, the Department may require revised or additional monitoring requirements as a condition of approval of the permit modification.

The plan shall generally contain the following items:

- a. Topographic and bathymetric profile surveys of the beach and offshore shall be conducted within 90 days prior to commencement of construction, and within 60 days following completion of construction of the project. Thereafter, monitoring surveys shall be conducted annually for a period of three (3) years, then biennially until the next beach nourishment event or the expiration of the project design life, whichever occurs first. The monitoring surveys shall be conducted during a spring or summer month and repeated as close as practicable during that same month of the year. If the time period between the immediate post-construction survey and the first annual monitoring survey is less than six months, then the permittee may request a postponement of the first monitoring survey until the following spring/summer. A prior design survey of the beach and offshore may be submitted for the pre-construction survey if consistent with the other requirements of this condition.

The monitoring area shall include profile surveys that extend throughout the fill project to minimum of 3000 feet south of the fill area. All beach profiles shall



extend seaward 3000 feet from MHW or to a depth of -30 feet NGVD, whichever is less. All work activities and deliverables shall be conducted in accordance with the latest update of the Bureau of Beaches and Coastal Systems (BBCS) *Monitoring Standards for Beach Erosion Control Projects, Sections 01000 and 01100*.

- b. Bathymetric surveys of the borrow area(s) shall be conducted within 90 days prior to commencement of construction, and within 60 days following completion of construction. A prior design survey of the borrow area may be submitted for the pre-construction survey if consistent with the other requirements of this condition.

Survey grid lines across the borrow area(s) shall be spaced to provide sufficient detail for accurate volumetric calculations but spaced not more than a maximum of 500 feet apart, and shall extend a minimum of 500 feet beyond the boundaries of the borrow site. In all other aspects, work activities and deliverables shall be consistent with the BBCS Monitoring Standards for Beach Erosion Control Projects, Section 01200.

- c. The permittee shall submit an engineering report and the monitoring data to the BBCS within 90 days following completion of the post-construction survey and each annual or biennial monitoring survey. The report shall summarize and discuss the data, the performance of the beach fill project, and identify erosion and accretion patterns within the monitored area.

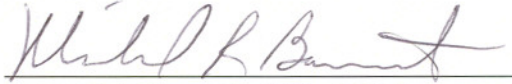
Appendices shall include plots of survey profiles and graphical representations of volumetric and shoreline position changes for the monitoring area. Results shall be analyzed for patterns, trends, or changes between annual surveys and cumulatively since project construction.

- d. Monitoring reports and data shall be submitted to the Bureau of Beaches and Coastal Systems in Tallahassee. Failure to submit reports and data in a timely manner constitutes grounds for revocation of the permit. When submitting any monitoring information to the Bureau, please include a transmittal cover letter clearly labeled with the following at the top of each page: **"This monitoring information is submitted in accordance with Item No. [XX] of the approved Monitoring Plan for Permit No. 0228528-001-JC (Duval Beach Nourishment Project) for the monitoring period [XX]."**



Executed in Tallahassee, Florida.

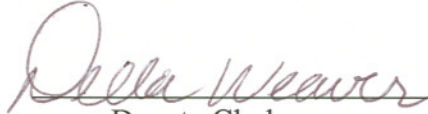
STATE OF FLORIDA DEPARTMENT  
OF ENVIRONMENTAL PROTECTION



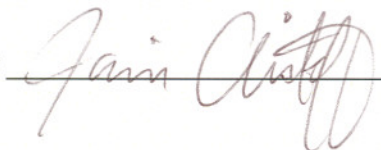
Michael R. Barnett, P.E., Chief  
Bureau of Beaches and Coastal Systems

**FILING AND ACKNOWLEDGMENT**

FILED, on this date, pursuant to Section 120.52, Florida Statutes, with the designated  
Department Clerk, receipt of which is hereby acknowledged.

  
Deputy Clerk

4/18/05  
Date

Prepared by 

55 pages attached.